



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,283	11/14/2003	Masahiro Nozaki	AD6629USCNT	2285

23906 7590 03/09/2006

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

WOODWARD, ANA LUCRECIA

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,283

Applicant(s)

NOZAKI, MASAHIRO

Examiner

Ana L. Woodward

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/14/2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the amounts recited are indefinite in that it is unclear as to whether such are based upon total composition or solely upon the total sum of the recited materials.

In claim 1, "graft modified" is indefinite as to scope and meaning.

In claim 3, it is unclear as to what is meant "further molding aromatic monomer".

In claim 4, line 1, "are", as opposed to "is", is queried.

In claim 5, the capitalization of "Wollastonite" is queried.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,013,786 (Payne et al), on record, in view of U.S. 5,965,655 (Mordecai et al).

Payne et al teach a thermoplastic polyamide molding composition comprising

i) 42-90% thermoplastic polyamide including polyamides from aromatic dicarboxylic acids, reading on the presently claimed polyamide,

Art Unit: 1711

ii) 3% rubber impact modifiers, such as rubbers from ethylene, propylene, butadiene and (meth)acrylates, for example EPDM preferably grafted with carboxylic acids and rubbers comprising copolymers of ethylene and (meth)acrylic acid, reading on the presently claimed elastomer, and

iii) 9.5-55% fibrous or particulate fillers, in particular, wollastonite, generic to the presently claimed wollastonite.

Mordecai et al teach compositions of a thermoplastic polymer (specifically taught polyamide), a fine needle like particulate mineral (wollastonite) and a suitable elastomer. The wollastonite has average length of 1-50 microns, average diameter of 0.1-10 microns and average aspect ratio of about 6, or 1-10. See column 2, lines 39-61, column 9, lines 2-33 and 62 – column 10.

The main difference between the claimed invention and the teaching of Payne et al is that Patentees fail to provide the dimensional characteristics of the wollastonite particles. However, Mordecai et al use the same wollastonite fillers for blending with polyamide and elastomers, in proportions within Applicants' claimed ranges and clearly recognize that the wollastonite used in such blends have number average length of about 0.1 to about 50 micron and a mean number average diameter of about 0.1 to about 10 micron, preferably average length of about 5-40 micron, the number average aspect ratio is about 6, preferably ranging 1-10. Comparing these teachings with Applicants' claimed dimensions, the Applicants are merely listing the dimensional characteristics of the conventional wollastonite.

Therefore, in view of the difference between the subject matter as a whole sought to be patented and the totality of the teachings of prior art, as established above, it would have been

Art Unit: 1711

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains, to follow the teachings of Payne et al and Mordecai et al and formulate the polyamide blend with an elastomer and a mineral filler wollastonite, and include the dimensional characteristics of number average length, number average diameter and the average aspect ratio for wollastonite as taught in Mordecai et al.

The motivation for combining the references comes from the fact that both are directed to the same polyamide blend containing polyamide, elastomer and wollastonite. Mordecai et al provides the dimensional characteristics for the filler, which are well known in the art. It is noted that Applicants' claimed dimensions number average length of approximately 5-180 micron (Mordecai 5-40 micron), number average diameter of approximately 0.1-15 micron (Mordecai 0.1-10 micron), and the average aspect ratio of which is greater than 3:1 (Mordecai 6, 1-10) – are much wider than the wollastonite taught in Mordecai. The comparative showing in Applicants' specification does not establish criticality for the presently claimed dimensions since it does not give the dimensions of the wollastonite Nyad G used as “prior art” filler.

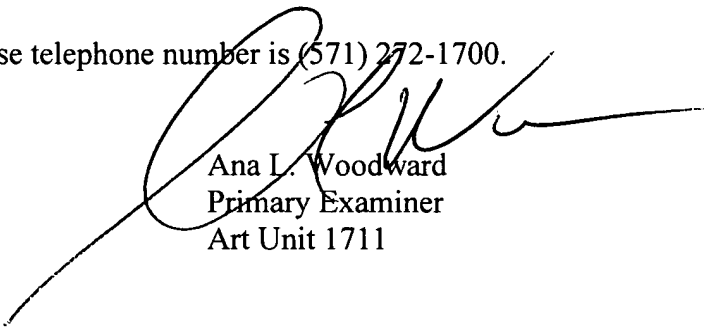
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Art Unit: 1711

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.



Ana L. Woodward
Primary Examiner
Art Unit 1711

AW
March 6, 2006